ABSTRACT

Flexible factory joint for metallic tubes which enclose loosely inside them optical fibers and its method of construction

Flexible joint which is used for the repair during the production of metallic tubes which enclose loosely inside them optical fibers, surrounded by a suitable filling material or for the connection of long lengths of the above mentioned tubes during the manufacturing of submarine cables which contain these tubes.

The joint comprises a connecting metallic tube (6), which connects externally with overlapping at its ends the metallic tubes (3, 10) after splicing is performed between the optical fibers which they enclose and which are separated in bundles (1, 2).

The mechanical connection of the joint is achieved through plastic deformation of the over-applied connecting metallic tube by creating grooved rings (11) at the sections where it overlaps the metallic tubes to be connected (3,10). The water tightness of the joint is obtained by welding the ends (8) of the over-applied connecting metallic tube (6) to the external surface of the metallic tubes to be connected (3, 10). In the case the metallic tubes carry a plastic coating (4), this is restored in the area of the joint (9, 5).